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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,310	06/01/2005	Daniel Fages	NY-GRYN 223-US	1258

24972 7590 02/05/2007  
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NEW YORK, NY 10103-3198

EXAMINER
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LAFORGIA, CHRISTIAN A

ART UNIT	PAPER NUMBER
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2131

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,310	<b>Applicant(s)</b> FAGES ET AL.	
	<b>Examiner</b> Christian La Forgia	<b>Art Unit</b> 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-9 have been cancelled as per Applicant's preliminary amendment.
2. Claims 10-22 have been presented for examination.

#### ***Priority***

3. Acknowledgment is made of applicant's claim for foreign priority.

#### ***Specification***

4 The disclosure is objected to because it contains an embedded hyperlink (page 3, i.e. www.yahoo.com) and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

##. The use of the trademark Apache has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

##. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

#### ***Claim Rejections - 35 USC § 112***

- 5 The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 6 The phrase "as little as possible" in claims 10-22 is a relative phrase, which renders the claim indefinite. The phrase "as little as possible" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. See MPEP § 2173.05(b).

*Claim Rejections - 35 USC § 102*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 10-22 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 7,013,482 to Krumel, hereinafter Krumel.

9. As per claim 10, Krumel teaches a method for securing logical access to information and/or computing resources in a group of computer equipment while slowing down said logical access as little as possible, said group of computer equipment exchanging data with a computer telecommunication network via an access device comprising an operating system, and said data comprising transported data that conform to at least one application protocol, as well as transport data, said method comprising the steps of:

defining a finite-state machine for each application protocol (column 6, lines 43-64, i.e. fixed state machine);

modeling each finite-state machine in the form of a model (Figures 2 [blocks 36-1, 36-N], 3 [blocks 46, 48, 50, 52], 4 [block 64], 5 [block 81], 7 [blocks 140-1, 140-N], column 6, line 64 to column 7; line 52, column 10, lines 58-67, column 12, lines 39-46, i.e. state rule filters are generated based on data and communication state information to determine how to handle the incoming data packets);

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generating from each model, an analysis module for each application protocol by means of an interpreter (Figures 2 [blocks 36-1, 36-N], 3 [blocks 46, 48, 50, 52], 4 [block 64], 5 [block 81], 7 [blocks 140-1, 140-N], column 7, lines 1-52, column 10, lines 58-67, column 12, lines 39-46, i.e. rules engines, the packet is analyzed to determine what filtering to perform and how to deconstruct the datagram, determine the IP characteristics and how further filtering will be performed); and

filtering the transported data in said operating system by means of said analysis modules (Figures 2 [blocks 26, 42], 3 [blocks 46, 48, 50, 52], 4 [blocks 46, 76], 5 [block 106], 8 [blocks 153, 154], column 7, lines 1-22, column 7, lines 53-65, column 8, line 52 to column 9, line 4, i.e. initiating filtering rules via a plurality of rules engines).

10. Regarding claim 11, Krumel teaches the step of verifying the conformity of said transported data with the application protocols involved by means of said analysis modules (Figures 2 [block 22], 3 [block 44], column 6, lines 43-63, column 8, line 60 to column 9, line 4).

11. Regarding claim 12, Krumel teaches the step of restricting the capabilities offered by an application protocol by means of said analysis module (Figures 2 [blocks 24, 28], 3 [blocks 46, 48, 50, 52], column 7, lines 52-65, column 8, lines 52-59, i.e. rules controller, rules aggregator combine to form decision whether to pass/fail data packet, filtering rules are based on packet characteristics and connection state information).

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12. With regards to claim 13, Krumel teaches the step of restricting the capabilities offered by an application protocol by means of said analysis module (Figures 2 [blocks 24, 28], 3 [blocks 46, 48, 50, 52], column 7, lines 52-65, column 8, lines 52-59, i.e. rules controller, rules aggregator combine to form decision whether to pass/fail data packet, filtering rules are based on packet characteristics and connection state information).

13. With regards to claim 14, Krumel teaches the step of parameterizing said analysis modules in accordance with predetermined restrictions by a network administrator (Figure 9 [block 176, 180, 181, 182], column 18, lines 35-54, i.e. toggles may be used for reconfiguring or updating the system, providing updated filtering algorithms).

14. As per claim 15, Krumel teaches an access device for securing logical access to information and/or computing resources in a group of computer equipment while slowing down said logical access as little as possible, said group of computer equipment exchanging data with a computer telecommunication network via said access device, and said data comprising transported data that conform to at least one application protocol, as well as transport data, said access device comprising:

an operating system that includes an appropriate analysis module for each application protocol (Figures 2 [blocks 36-1, 36-N], 3 [blocks 46, 48, 50, 52], 4 [block 64], 5 [block 81], 7 [blocks 140-1, 140-N], column 7, lines 1-52, column 10, lines 58-67, column 12, lines 39-46, i.e. rules engines, the packet is analyzed to determine what filtering to perform and how to

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deconstruct the datagram, determine the IP characteristics and how further filtering will be performed);

a filtering module for filtering said transported data in said operating system by means of said analysis modules (Figures 2 [blocks 26, 42], 3 [blocks 46, 48, 50, 52], 4 [blocks 46, 76], 5 [block 106], 8 [blocks 153, 154], column 7, lines 1-22, column 7, lines 53-65, column 8, line 52 to column 9, line 4, i.e. initiating filtering rules via a plurality of rules engines). **Microsoft Computer Dictionary** states that an operating system is the software that controls the allocation and usage of hardware resources, such as memory, central processing unit time, disk space, and peripheral devices; the operating system is the foundation software on which applications depend. An operating system is essential for computing devices and, although it is not stated explicitly, a component of the Krumel patent. Krumel's co-pending application U.S. 2002/0083331 A1 provides examples of the operating system in at least figures 18-20.

15. Regarding claim 16, Krumel teaches wherein each analysis module implements a finite-state machine representing a given application protocol (Figures 2 [block 42], 8 [blocks 153, 154], column 7, lines 4-22, column 15, line 29 to column 16, line 15, i.e. based on state connection information, filtering rules are initiated via a plurality of rules engines).

16. Regarding claim 17, Krumel teaches wherein said analysis modules comprises a first information processing module for verifying the conformity of said transported data with said application protocols involved (Figures 2 [block 22], 3 [block 44], 4 [block 64], 5 [block 81], 6

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[blocks 110, 112], 7 [block 133], 8 [block 150], column 6, lines 43-53, column 8, line 60 to column 9, line 4, column 10, line 58 to column 11, line 5, column 12, lines 39-47).

17. Regarding claim 18, Krumel teaches wherein said analysis modules comprises an information processing module for restricting the capabilities offered by an application protocol (Figures 2 [blocks 24, 28], 3 [blocks 46, 48, 50, 52], column 7, lines 52-65, column 8, lines 52-59, i.e. rules controller, rules aggregator combine to form decision whether to pass/fail data packet, filtering rules are based on packet characteristics and connection state information).

18. With regards to claim 19, Krumel teaches a parameterization module for parameterizing said analysis modules in accordance with predetermined restrictions by a network administrator (Figure 9 [block 176, 180, 181, 182], column 18, lines 35-54, i.e. toggles may be used for reconfiguring or updating the system, providing updated filtering algorithms).

19. With regards to claim 20, Krumel teaches wherein said analysis modules comprises a first information processing module for verifying the conformity of said transported data with said application protocols involved (Figures 2 [block 22], 3 [block 44], column 6, lines 43-63, column 8, line 60 to column 9, line 4).

20. With regards to claim 21, Krumel teaches wherein said analysis modules comprises an information processing module for restricting the capabilities offered by an application protocol (Figures 2 [blocks 24, 28], 3 [blocks 46, 48, 50, 52], column 7, lines 52-65, column 8, lines 52-



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59, i.e. rules controller, rules aggregator combine to form decision whether to pass/fail data packet, filtering rules are based on packet characteristics and connection state information).

21. With regards to claim 22, Krumel teaches wherein said analysis modules comprises a second information processing module for restricting the capabilities offered by an application protocol (Figures 2 [blocks 24, 28], 3 [blocks 46, 48, 50, 52], column 7, lines 52-65, column 8, lines 52-59, i.e. rules controller, rules aggregator combine to form decision whether to pass/fail data packet, filtering rules are based on packet characteristics and connection state information, the level 2, 3, 4, filters).

### ***Conclusion***

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

23. The following patents are cited to further show the state of the art with respect to stateful firewalls, such as:

United States Patent Application Publication No. 2002/0083331 A1 to Krumel, which is cited to show a co-pending application to the one that was used to reject the claims in the instant application.

United States Patent No. 7,107,609 B2 to Cheng et al., which is cited to show a stateful firewall cluster.

United States Patent No. 6,141,749 to Coss et al., which is cited to show a firewall with stateful packet filtering.

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United States Patent Application Publication No. 2003/0051155 A1 to Martin, which is cited to show a state machine used to grant access via a firewall.

United States Patent No. 6,349,405 B1 to Welfeld, which is cited to show a packet classification system that uses a state machine.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian La Forgia whose telephone number is (571) 272-3792.

The examiner can normally be reached on Monday thru Thursday 7-5.

25. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

26. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christian LaForgia  
Patent Examiner  
Art Unit 2131



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